

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) An apparatus comprising:
 - a demand order module including a set of products to be shipped to a target location;
 - a demand projection module to calculate a second weighting factor of a second time period based on a first weighting factor of a first time period, the first time period preceding the second time period, the demand projection module to determine a demand for the set of products for a plurality of subdivisions of the second time period based on the second weighting factor and historical demand data, the second weighting factor being a percentage of the demand for one subdivision out of the plurality of subdivisions of the second time period; and
 - a processing device to execute the demand projection module.
2. (Original) The apparatus of claim 1, further comprising:
 - a storage device to store the demand projection module.
3. (Previously Presented) The apparatus of claim 1, further comprising:
 - a data structure to store actual demand data for the second time period.
4. (Currently Amended) A method comprising:
 - forecasting a total demand for a second time period by a demand projection module executed by a computer processor;
 - calculating a second weighting factor for a plurality of subdivisions of the second time period by the demand projection module, the second weighting factor being a percentage of the total demand for one subdivision out of the plurality of subdivisions of the second time period, wherein calculating the second weighting factor comprises:
 - applying a smoothing factor to new demand data to produce a first result;
 - aggregating the new demand data for the second time period;

applying an inverted smoothing factor to a first weighting factor to generate a second result, the first weighting factor corresponding to a first time period, the first time period preceding the second time period; and
adding the first result and the second result; and
projecting future demand by the demand projection module, during the second time period, for a subdivision based on the second weighting factor and historical demand data.

5. (Previously Presented) The method of claim 4, further comprising:
initializing the second weighting factor to an equal value for each subdivision.
6. (Canceled)
7. (Previously Presented) The method of claim 4, wherein projecting future demand comprises:
multiplying total demand by the second weighting factor and a ratio of actual demand and forecast demand.
8. (Original) The method of claim 4, further comprising:
adjusting a future demand forecast based on an out of stock calculation.
9. (Original) The method of claim 4, further comprising:
separating demand data between promotion demand and baseline demand.
10. (Currently Amended) The method of claim [[6]] 4, wherein the smoothing factor biases the second weighting factor in relation to historical demand data.
11. (Original) The method of claim 4, further comprising:
selecting one of a forecast demand and a projected demand based on a threshold value.

12. (Previously Presented) The method of claim 11, wherein the threshold value is a ratio of cumulative sales data for a subdivision of the second time period and cumulative forecast data for the subdivision of the second time period.
13. (Original) The method of claim 4, wherein a projected future demand is utilized when a minimum amount of historical demand data is received.
14. (Original) The method of claim 4, further comprising:
filtering historical demand data to remove statistical outliers.
15. (Currently Amended) An apparatus comprising:
means for calculating a first weighting factor of a first day of a first week, the first weighting factor being a first percentage of demand for the first day out of all days of the first week;
means for calculating a second weighting factor of a second day of a second week based on the first weighting factor, the second week following the first week, the second day is a same Day-day of the Week-week as the first day, the second weighting factor being a second percentage of demand for the second day out of all days of the second week;
means for calculating a third weighting factor of a third day of a third week based on the second weighting factor, the third week following the second week, the third day is the same Day-day of the Week-week as the first day and the second day, the third weighting factor being a third percentage of demand for the third day out of all days of the third week;
means for calculating a forecasted demand and a projected demand; and
means for dynamically updating the projected demand based on additional demand data.
16. (Original) The apparatus of claim 15, further comprising:

means for adjusting the forecasted demand based on out of stock calculations.

17. (Previously Presented) The apparatus of claim 15, further comprising:
means for adjusting the first weighting factor, the second weighting factor, or the third weighting factor based on additional demand data.
18. (Original) The apparatus of claim 15, further comprising:
means for separating promotion data from baseline data.
19. (Previously Presented) The apparatus of claim 15, wherein the means for calculating the second weighting factor utilizes a smoothing factor to bias the second weighting factor in relation to the first weighting factor.
20. (Original) The apparatus of claim 15, further comprising:
means for outputting the projected demand to a transportation route determination module.
21. (Original) The apparatus of claim 15, further comprising:
means for receiving demand data.
22. (Currently Amended) A machine readable medium containing therein a set of instructions which when executed cause a machine to perform a set of operations comprising:
forecasting a total demand for a time period;
calculating a weighting factor for each of a plurality of subdivisions of the time period based on an initialized weighting factor of an equal value for each of the a plurality of initial subdivisions of the an initial time period, the weighting factor for a subdivision in the plurality of subdivisions being a percentage of the total demand for the subdivision out of the plurality of subdivisions of the time period; and

projecting future demand, during the time period, for ~~a~~the subdivision based on the weighting factor and historical demand data.

23. (Canceled)

24. (Previously Presented) The machine readable medium of claim 22, wherein calculating the weighting factor comprises:

applying a smoothing factor to new demand data to produce a first result;

aggregating a new demand data for the time period;

applying an inverted smoothing factor to a previous weighting factor to generate a second result; and

adding the first result and the second result.

25. (Original) The machine readable medium of claim 22, wherein projecting future demand comprises:

multiplying total demand by the weighting factor and a ratio of actual demand and forecast demand.

26. (Original) The machine readable medium of claim 22, having further instructions stored therein, which when executed cause a machine to perform a set of operations, further comprising:

adjusting a future demand forecast based on an out of stock calculation.

27. (Original) The machine readable medium of claim 22, having further instructions stored therein, which when executed cause a machine to perform a set of operations, further comprising:

separating demand data between promotion demand and baseline demand.

28. (Original) The machine readable medium of claim 22, wherein the smoothing factor biases the weighting factor in relation to historical demand data.

29. (Original) The machine readable medium of claim 28, having further instructions stored therein, which when executed cause a machine to perform a set of operations further comprising:
- selecting one of a forecast demand and a projected demand based on a threshold value.
30. (Original) The machine readable medium of claim 29, wherein the threshold value is a ratio of cumulative sales data for a subdivision of the time period and cumulative forecast data for the subdivision of the time period.
31. (Original) The machine readable medium of claim 28, wherein a projected demand is utilized when a minimum amount of historical demand data is received.
32. (Original) The machine readable medium of claim 22, having further instructions stored therein, which when executed cause a machine to perform a set of operations, further comprising:
- filtering historical demand data to remove statistical outliers.